

<b>Notice of Allowability</b>	<b>Application No.</b>	<b>Applicant(s)</b>
	10/603,379	NICOLAESCU ET AL. <i>[Signature]</i>
	Examiner Krystyna Susecki	Art Unit 2882

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTO-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to Amendment filed 06/10/05.
2.  The allowed claim(s) is/are 1-17, 19-21 and 28-30.
3.  The drawings filed on 24 October 2003 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
 of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftperson's Patent Drawing Review (PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date 07/26/05, 04/06/05
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

**DETAILED ACTION*****Allowable Subject Matter***

1. Claims 1-17, 19-21 and 28-30 are allowed.
2. The following is an examiner's statement of reasons for allowance: Claims 1, 11, 19 and 28 contain allowable subject matter for at least the reason that the prior art of record fails to teach or fairly suggest an apparatus, method and system comprising first and second optical waveguides, with respective first and second charge layers, disposed in a semiconductor material layer and an insulating region disposed between the waveguides to provide a coupling region, the first charge layer and the second charge layer formed proximate to the insulating region, the coupling region having a first coupling length for a first polarization mode and a second coupling length for a second polarization mode of an optical beam directed through one of the waveguides as claimed. While Takabayashi and Thanyavarin teach coupling areas, they do not specifically teach charge layers as claimed. McCaughan (US 6,545,791) and Ade (US 5,347,601) teach coupling areas with electric field lines pictorially represented. The field lines are not charge layers, per se. An area that is filled by an electric field is not a "layer" as claimed, especially since the charge is not even, or distinctly layered, as it propagates. Kapon (US 4,869,569) is of interest since waveguides are made of layers of material. An electric field could then cause charge layers to build up within layers of the waveguide material. However, Kapon does not show a layer with charge built up enough to constitute a "charge layer". Kapon also fails to teach the polarization mode propagations as claimed and instead teaches filters to keep a single polarization mode within the device.

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3. Claims 2-10, 12-17, 20, 21, 29 and 30 contain allowable subject matter at least by virtue of their dependency.

4. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Krystyna Suchecki whose telephone number is (571) 272-2495. The examiner can normally be reached on M-F, 9-5.

6. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Edward Glick can be reached on (571) 272-2490. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

7. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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*David Bruce*  
DAVID V. BRUCE  
PRIMARY EXAMINER